

The Breastfeeding Case Study: A Model for Educating Nursing Students

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ABSTRACT

Due to several national initiatives and recommendations from professional organizations, more women may be encouraged to breastfeed. However, they will not achieve improvement in breastfeeding duration if their health care providers lack knowledge about breastfeeding or are not easily accessible in some areas. Nurses who work with families with children are responsible for a great deal of patient education and can affect women's decisions to initiate and continue breastfeeding. Therefore, it is critical that nurse educators find a way to address this knowledge gap, especially in already overburdened curricula. This article describes a successful model for doing so.

The American Academy of Pediatricians (AAP) Work Group on Breastfeeding (1997) recommends exclusive breastfeeding for the first 6 months of infants' lives, with continued breastfeeding for 1 year or more. In addition, the World Health Organization (WHO) (2000) and other professional groups have issued state-

ments that promote breastfeeding and the use of human breast milk as the ideal form of infant nutrition for the first year of life. The health benefits of breastfeeding are so significant that a national health objective set forth in *Healthy People 2010* (U.S. Department of Health and Human Services, 2000) is to increase the percentage of mothers who breastfeed their babies during the postpartum period.

Health Care Providers' Breastfeeding Knowledge

Health care providers' lack of knowledge, training, and education pertaining to breastfeeding has been well documented in the literature. Eden, Mir, and Srinivasan (2000) surveyed program directors of every accredited pediatric residency program in the United States ($n = 209$) and found that 45% of respondents rated the quality of their own breastfeeding education as mediocre or below, and 43% rated their current program as inadequate or in need of improvement. In addition, Freed, a pediatrician, has been at the forefront of identifying the knowledge deficit among both physicians and nurses regarding basic breastfeeding information (Freed, 1993; Freed, Clark, Lohr, & Sorenson, 1995; Freed et al., 1995).

Freed, Clark, Harris, and Lowdermilk (1996) conducted a survey to assess knowledge of nursing students ($n = 272$) in the final year of their programs (both baccalaureate and associate degree programs). Although 93% of respondents reported having received a lecture on breastfeeding, only 25% had received any

experience related to breastfeeding during clinical activities. Anderson and Geden (1991) also noted that nurses received insufficient education and training to effectively support breastfeeding mothers. This lack of sufficient training in medical and nursing programs leads to inadequate, inappropriate, or no breastfeeding assistance and advice for mothers, which, in turn, often results in breastfeeding failure.

With the launch of the National Women's Health Information Center's (n.d.) media campaign on breastfeeding, more women may be encouraged to initiate breastfeeding. However, if health care providers who offer research-based breastfeeding care and advice are not easily accessible, an improvement in breastfeeding duration will not be achieved. Nurses who work with childbearing families are responsible for vast amounts of patient education and can affect women's decisions to initiate and continue breastfeeding. Therefore, it is critical that nurse educators find a way to address this knowledge gap, especially in already overburdened curricula. In this article, I describe a successful model for addressing this gap.

Description of the Course

Since 1995, the University of Pennsylvania School of Nursing has offered a course entitled "A Case Study in Breastfeeding and Human Lactation." It is one of several case study courses offered to junior and senior nursing students. Students have the option of choosing which case study best meets their career goals.

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All students receive a basic lecture about breastfeeding as part of their undergraduate obstetrical nursing course. However, students who plan to work in the fields of obstetrics, pediatrics, or family nursing have the opportunity to focus their knowledge development in the area of breastfeeding. Through this course, faculty have prepared 162 students to be breastfeeding advocates and have equipped them with research-based knowledge regarding breastfeeding. In fact, many graduates report this course was one of the primary reasons their employers decided to hire them.

Course Content

Through classroom and clinical experiences, students are able to examine in-depth topics such as the anatomy and physiology of lactation, the role of culture and support in breastfeeding, essential aspects of establishing and maintaining lactation, and the nurse's role in counseling breastfeeding families. The Table contains a sample course schedule.

Emphasis is placed on current research findings, and course objectives are to:

- Discuss breastfeeding issues within the context of history, theory, research, and practice.
- Demonstrate critical thinking skills in relation to the challenges associated with breastfeeding.
- Evaluate interventions used in the management of the maternal-infant dyad.
- Identify and assess factors within clients' environments and cultures that influence breastfeeding.
- Discuss ethical issues and approaches to ethical dilemmas that confront breastfeeding mothers and their families and how to intervene appropriately.
- Recognize the roles of the interdisciplinary team in providing breastfeeding education, counseling, and support.
- Identify barriers in the health care system faced by breastfeeding families and demonstrate critical thinking to overcome these barriers.
- Identify professional resources for continued growth.

- Identify community resources for breastfeeding families.

Because the course is offered as a seminar, class participation is strongly emphasized, and teaching strategies can be creative. For example, to learn about the biological aspects of breast milk, the class is divided into two teams to play "Breast Milk Bingo." The various components of human milk are written on the bingo cards, and when students place chips on their cards, they must describe the role of that component in human breast milk.

Another strategy that always affects the students is the maternal breastfeeding panel. For this class session, mothers who are currently breastfeeding are invited to attend with their children and tell their childbirth and breastfeeding stories. A diverse group of mothers, infants, toddlers, and even fathers are chosen to serve on the panel. Every year, the students describe this as one of the most useful learning activities. The panelists are also asked to give the students advice on providing breastfeeding care and support when they work as nurses in the future.

Student Evaluation

The students are evaluated three ways:

- A project, which equals 40% of their final grade.
- Biweekly research critiques, which equal 40% of their final grade.
- Class participation, combined with completion of 14 hours clinical experience and written reflective logs, which equal 20% of their final grade.

Upon completion of the course, the students receive a certificate documenting that they have received 28 hours of didactic education and 14 hours of clinical experience in human lactation and breastfeeding. The course appears on their transcripts; however, students are encouraged to take the certificate with them to job interviews and use it as a talking point regarding the skills they will bring to the institution.

Course Project. For the course project, students have three options: to prepare a manuscript for publication,

Week	Topic
1	Historical perspectives on breastfeeding
2	Role of culture and families
3	Anatomy and physiology
4	Process and education
5	Biological aspects of breast milk
6	Drugs and viruses in breast milk
7	Breastfeeding the preterm infant
8	Jaundice
9	Infant complications
10	Employment
11	Maternal breastfeeding panel
12	Human milk banking
13	Student project presentations
14	Student project presentations

complete a case study with a breastfeeding family, or complete a breastfeeding advocacy project. The most popular choice is the advocacy project. It has been theorized that many breastfeeding problems women experience stem from lack of knowledge and support in their environments. The purpose of the advocacy project is to give students an opportunity to influence attitudes and provide knowledge in their own community, while gaining experience communicating to the public about breastfeeding.

The first step of the project is to identify a community; how the community is defined is left to the discretion of the students, guided by the course director. Many types of "communities" can be influenced, as highlighted in the example below. After the community is identified, students assess the attitudes and beliefs of the community members, through both personal interviews and use of research literature. Students then develop a project to address the needs

of that community, as well as an appropriate breastfeeding resource list specific to the community needs. After the project is carried out, students evaluate its effectiveness, develop recommendations for its expansion, and share their experiences with their colleagues. The following is an example of an advocacy project.

A student working toward her second degree had previously worked as a fitness specialist for a large, local company, which had no formalized breastfeeding support for its employees. Using her prior connections to the company, the student designed an advocacy project with three parts: she helped the company establish permanent space for employees to use breast pumps; developed a PowerPoint® presentation on the benefits of breastfeeding and issues related to breastfeeding during employment; and created a comprehensive resource binder.

Over the years, advocacy projects have profoundly affected the local breastfeeding culture and environment. In addition, students acquire the skills necessary to be change agents in their future nursing practice.

Biweekly Research Critiques. The biweekly research critiques emphasize that the science of breastfeeding is always emerging. Students are required to read articles published during the previous 3 years, succinctly describe and critically evaluate them, consider how the articles influence current practice, and discuss how changes in practice should be implemented. Qualitative evaluation data collected each semester demonstrates that students believe this to be a valuable way to better understand current research and learn how to apply research to practice.

Class Participation and Clinical Experience. Class participation and completion of clinical hours ensure that students have the opportunity to learn skills that will enhance their performance as future health care providers. Clinical experiences are selected from a variety of options, such

as shadowing a lactation specialist; attending a prenatal or postnatal breastfeeding class, a breastfeeding support group, a nursing mothers group, or a La Leche League meeting; and working with the local Women, Infants, and Children (WIC) programs.

Students complete a written journal about the experience and describe the experience, including any positive or negative reflections. This activity is always eye-opening for students, as they begin to learn that variations exist in the level of research-based breastfeeding advice being provided. The clinical experiences also allow students to develop personal connections in the community and often lead to collaboration with a lactation specialist or hospital staff for the course project.

Students also have the opportunity to use breastfeeding equipment (e.g., hospital-grade and nonhospital-grade electric breast pumps, nipple shields, supplemental nurser systems), in the Instructional Technology Laboratory prior to their clinical experience. They can also practice weighing an infant before and after feeding to measure milk transfer using a doll and the Baby Weigh® scale.

Course Evaluation

Students complete course evaluations each semester. Overall quality of the course has ranged from 3.3 to 4.0 on a scale in which 4 equals the highest possible quality. Qualitative data from the evaluations is always very positive. Students also keep in contact with the course director following graduation, which has led to future collaborative projects. In addition, graduates often relate stories of how they have made changes in practice.

Summary

The breastfeeding case study described in this article is an ideal way for nurse educators to meet students' educational needs related to breastfeeding within already overburdened

curricula. While all students should receive basic breastfeeding education and training, the additional training provided by this case study allows students who are interested in working with childbearing families to achieve a unique skill set prior to graduation. As more women elect to initiate breastfeeding, nurses must have research-based knowledge to help mothers be successful.

References

- American Academy of Pediatrics Work Group on Breastfeeding. (1997). Breastfeeding and the use of human milk. *Pediatrics*, *100*, 1035-1039.
- Anderson, E., & Geden, E. (1991). Nurses' knowledge of breastfeeding. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, *20*, 58-64.
- Eden, A.N., Mir, M.A., & Srinivasan, P. (2000). The pediatric forum: Breastfeeding education of pediatric residents: A national survey. *Archives of Pediatrics and Adolescent Medicine*, *154*, 1271-1272.
- Freed, G.L. (1993). Breastfeeding: Time to teach what we preach. *Journal of the American Medical Association*, *269*, 243-245.
- Freed, G.L., Clark, S.J., Harris, B.G., & Lowdermilk, D.L. (1996). Methods and outcomes of breastfeeding instruction for nursing students. *Journal of Human Lactation*, *12*, 105-110.
- Freed, G.L., Clark, S.J., Lohr, J.A., & Sorenson, J.R. (1995). Pediatrician involvement in breastfeeding promotion: A national study of residents and practitioners. *Pediatrics*, *96*, 490-494.
- Freed, G.L., Clark, S.J., Sorenson, J., Lohr, J.A., Cefalo, R., & Curtis, P. (1995). National assessment of physician's breastfeeding knowledge, attitudes, training, and experience. *Journal of the American Medical Association*, *273*, 472-476.
- National Women's Health Information Center. (n.d.). *Breastfeeding—Best for baby. Best for mom.* Retrieved February 2, 2004, from <http://www.4woman.gov/Breastfeeding/index.htm>
- U.S. Department of Health and Human Services. (2000). Breastfeeding, newborn screening, and service systems. In *Healthy people 2010*. Retrieved February 2, 2004, from http://www.healthypeople.gov/document/HTML/Volume2/16MICH.htm#_Toc494699668
- World Health Organization. (2000). *Nutrition: Infant and young child*. Retrieved February 2, 2004, from http://www.who.int/child-adolescent-health/NUTRITION/infant_exclusive.htm

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